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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,570

08/16/2006

Andras Fazakas

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EXAMINER

NGUYEN, HAI L

ART UNIT

PAPER NUMBER

2816

MAIL DATE

DELIVERY MODE

12/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,570

Applicant(s)

FAZAKAS, ANDRAS

Examiner

Hai L. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>16 August 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings in this application are objected to by Examiner as informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.

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- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Claim Objections

3. Claim 1 is objected to because of the following informalities: line 1, "1. A" should be changed to --A--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1, the term "very low ohmic resistance" is a relative term, which renders the claim indefinite. The term "very low ohmic resistance" is indefinite for the same reason "relatively shallow" was held to be indefinite by the Board of Appeals, i.e., it is not clear what applicant intends to cover by the term "very low ohmic resistance" when referring to the resistance of the inductive element. See *Ex parte Oetiker*, 23 USPQ2d 641 (Bd. Pat. App. &

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Inter. 1992). MPEP \S 2173.05(b). Furthermore, the term "a high-frequency ferrite core" is similarly rejected as a relative term.

Claims 2-5 are rejected due to their dependencies on claim 1.

Claim Rejections - 35 USC \S 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable Choi (US pat. 6,178,104) in view of Pomponio (US 4,656,451).

With regard to claim 1, Choi discloses in Fig. 8 a switching arrangement comprising an electronic switch formed by the main circuit of a semiconductor device being a field effect transistor (12) with a gate electrode connected through an RC-type delay member (R_f , C_f) to the control input (V_{cs}); characterized in that wherein for protecting both the field effect transistor and the connected electrolytic condensers (C_1 , C_0) from the damaging effect of current surges appearing as switching transients but which, at the same time, affects the switching process only to the extent necessary for the protection, the rising of the current in said main circuit is delayed, wherein the delay is provided by two delay members, the first delay member is constituted by said RC-type delay member, the second delay member being an inductive element (L) connected in the main circuit of the field effect transistor. Fig. 8 of Choi shows a circuit meeting all of the claimed limitations of the switching arrangement, except for disclosing that the inductive

element is constituted by a conductor of predetermined length surrounded by a ferrite core.

Pomponio teaches in Figs. 1-4 a delay member (10) having an inductive element has a very low ohmic resistance and being constituted by a conductor (13) of predetermined length surrounded by a high-frequency ferrite core (11, 12) as recited in the claim. Therefore, it would have been obvious to one of ordinary skill in the art to employ delay member of Choi (L in Fig. 8 of Choi) for the advantage of preventing the switching arrangement from the damaging effect of current surges appearing as switching transients. Furthermore, the recitations "first electrolytic condenser (C1) has a capacity of at least 500 μ F; said second electrolytic condenser has a likewise large capacity" is rendered obvious by the references. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to set the capacity of each electrolytic condenser at certain level to meet the specific condition of the particular application. It has been held that discovering an optimum range or to optimally match to an application is obvious to the skilled artisan. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 2, wherein the ferrite core has two bores (17, 18 in Figs. 2-3 of Pomponio) which are at a predetermined distance from one another and which have parallel axes; the conductor (13) has two legs (15s) passed through the bores.

With regard to claim 3, wherein it comprises a plurality of short, stacked ferrite cores (11, 12 in Figs. 2-3 of Pomponio).

With regard to claim 4, wherein in the RC member the capacitive element is formed by the input capacity of the field effect transistor (12 in Fig. 8 of Choi)) and the unavoidable scattered capacities.

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With regard to claim 5, the recitation “the capacity of the switched electrolytic condensers is in the range of 10,000 pF” is also rendered obvious. Note the above discussion with regard to claim 1.

Conclusion

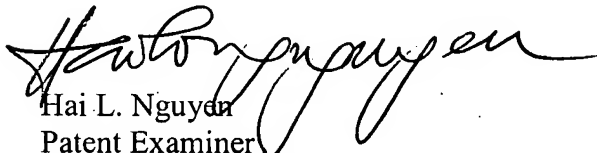
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. For example, Chokhawala (US 5,559,656) is cited as of interest because it discloses an IGBT switching voltage transient protection circuit.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Richards can be reached on 571-272-1736. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hai L. Nguyen
Patent Examiner
December 24, 2007